

Table S2. Premedication and TDM Protocol**Asparaginase Activity and Antibody Levels**

- L-Asparaginase activity levels for all patients.
- The assay is intended to detect silent inactivation of asparaginase.
- Allergic reactions do not necessarily correlate with asparaginase inactivation.
- The approach is the same for all patients.
- It will provide for better clinical care as well as significant cost savings because the change to a different type of asparaginase is considerably more expensive.
- Premedicate patients for all PEG doses (30 min prior to infusion):
Diphenhydramine (0.5–1 mg/kg PO or IV; max 50 mg)
Famotidine (1 mg/kg PO or IV; max 20 mg)
Hydrocortisone (1 mg/kg PO or IV; max 100 mg)
- Pegaspargase treatment day = day 0
- Blood drawn for PEG activity during wk 1 on day 4–7 post-PEG
- Blood drawn for PEG activity during wk 2 around day 14 post-PEG
- Therapeutic antibody titer is >0.1 unit/mL with day 14 value

If value is <0.1 unit/mL then check antibody titer

May consider switching to asparaginase Erwinia 25,000 unit/m² IM/IV Monday, Wednesday Fridays. Substitute 6 doses for each dose of pegaspaginase.

May offer JZP-458 per crisantaspase study (NCT04145531)

Treatment of Reaction

- Epinephrine (0.01 mg/kg IM; max 0.5 mg)
- Diphenhydramine (1 mg/kg IV; max 50 mg)
- Methylprednisolone (1 mg/kg IV; max 125 mg)

IM, intramuscular; IV, intravenous; PEG, pegaspargase; PO, oral; TDM, therapeutic drug monitoring